

CLAIMS

1. A surface treatment method using electric discharge, the method comprising the steps of:

generating an electric discharge, in a pulse form,
 5 between an electrode and a workpiece in a working liquid containing no carbon components, the electrode being formed with a material having a solid lubricant effect; and
 adhering and depositing the material of the electrode consumed or melted due to the generated electric discharge
 10 onto a surface of the workpiece thereby forming a coat having lubricant effect on the surface of the workpiece.

2. The surface treatment method using electric discharge according to claim 1, wherein ^Bthe material having solid
 15 lubricant effect is molybdenum, molybdenum disulfide, boron nitride,, tungsten disulfide, carbon, silver, gold, lead, tin, indium, nickel, or turcite, which is a compound of carbon and fluorine.

20 3. The surface treatment method using electric discharge according to claim 1, wherein the working liquid containing no carbon components is water.

4. An electrode, for discharge surfaced treatment, used
 25 for carrying out a surface treatment method using electric

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discharge, wherein the electrode being a powder compressed
electrode obtained by compression-molding powder of
molybdenum, molybdenum disulfide, boron nitride, tungsten
disulfide, carbon, silver, gold, lead, tin, indium, nickel,
5 or turcite, which is a compound of carbon and fluorine, or
a metal electrode comprising one or more of these components.

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